

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. _____

SUBJECT: Approval of Continuation of Department's Mute Swan Control Policy

FOR: JANUARY 2007 **BOARD MEETING**

TO BE PRESENTED BY: Ricky Lien, Wetland Habitat Specialist, Bureau of Wildlife Management

SUMMARY:

The NRB has asked for a review of the Department's mute swan control policy and to report on the effects of the policy, which was initially implemented in 1997 and revised in 2002. Department staff assessed the results of mute swan control efforts and found that from 1997 through 2006 (excepting 2004), Department personnel added (largely by injection of corn oil-based solution, shaking) 556 eggs, and shot and disposed in landfills 553 adults and 47 young statewide.

Overall, the Department's control policy has been very effective in checking the population growth of breeding mute swans. In 1996, one year before control began, there were 340 adult/subadult mute swans in the state. By spring/summer 2006, there were 141 that Department staff had counted statewide, with about 88% of these in southeastern Wisconsin (Waukesha, Walworth, Racine, Kenosha counties).

The Department recommends that the Natural Resources Board continue the current policy because the present course is effective in reducing the spread of this exotic species in the state. This is especially true at a time when the Department is apparently dealing with a manageable number of probably fewer than 150 breeding birds. Accordingly, the Department recommends that the NRB policy toward mute swans be unchanged from that in 2002: to remove all free-flying mute swans from Wisconsin, except for the two-township (Waterford and Rochester) area of northwestern Racine County. The Department requests that it report back in 3 years to provide a program review and update.

Some citizens from southeastern Wisconsin continue to voice disapproval of the Department's mute swan control policy because they see no reason that mute swans should be removed from the wild.

RECOMMENDATION: Continue Department's Mute Swan Control Policy

LIST OF ATTACHED MATERIALS:

No	<input checked="" type="checkbox"/>	Fiscal Estimate Required	Yes	<input type="checkbox"/>	Attached
No	<input checked="" type="checkbox"/>	Environmental Assessment or Impact Statement Required	Yes	<input type="checkbox"/>	Attached
No	<input type="checkbox"/>	Background Memo	Yes	<input checked="" type="checkbox"/>	Attached

APPROVED:

Bureau Director,

Date

Administrator,

Date

Secretary, Scott Hassett

Date

cc: Amy J. Arthur - AD/5

STAFF REVIEW - DNR BOARD AGENDA ITEM

REMINDER

Have the following questions been answered under the summary section of this form?

- Why is the rule needed?
- What are the significant changes?
- What are the key issues/controversies?
- What was the last action of the Board?

LIST OF ATTACHED REFERENCE MATERIAL REQUIRED FOR RULE PROPOSALS:

Hearing authorization:

Final adoption:

Background Memo (if needed)*

Fiscal Estimate

Environmental Assessment (if needed)

Rule

Background Memo (if needed)*

Response Summary

Fiscal Estimate

Environmental Assessment (if needed)

Rule

* If all the questions listed in the REMINDER section above can be adequately summarized on the Green Sheet (and a second sheet if needed), the Background Memo may be omitted.

Unit	Reviewer	Date	Comments
Environmental Analysis and Review			
Management and Budget			
Legal Services -Program Attorney -Carol Turner			
Other (if applicable)			

DATE: December 26, 2006

FILE REF: 1720

TO: Gerald M. O'Brien

FROM: Scott Hassett

SUBJECT: Review of Mute Swan Control Policy

Background

The NRB has asked for a review of the Department's mute swan control policy and to report on the effects of the policy, which was initially implemented in 1997.

The mute swan is considered a nuisance, exotic, feral species and by law is not protected in the following midwestern states: Minnesota, Iowa, and Indiana. In Michigan, privately owned cygnets must be pinioned (rendered permanently flightless by the removal of flight feathers or part of the wing) within 10 days after hatching, importation of live mute swans or their eggs is prohibited, and feral birds can be removed at the request of property owners. In Ohio, the Ohio DNR is actively removing adults and will authorize a private citizen to take a mute swan if asked. Only in Illinois is there no active program to control the population.

Additionally, the U.S. Congress concluded that it was in the best interest of the country to control this non-native species and specifically drafted the "Migratory Bird Treaty Reform Act" in 2004 to make it very clear that Mute Swans were not protected. Accordingly, the U.S. Fish and Wildlife Service has taken a strong position in favor of controlling mute swan population growth and range expansion. Both the Atlantic and Mississippi Flyways have also endorsed strong policies to control mute swan populations.

Concerns exist because mute swans may compete with breeding native waterfowl (ducks, geese, swans) for aquatic resources, including traditional nesting and feeding areas. In some eastern states, for example, concentrations of foraging mute swans can severely impact submerged aquatic vegetation (SAV) beds and restoration plantings. Foraging by mute swans during the growing season reduces plant survival and the availability of SAV for wintering waterfowl and other fish and wildlife populations dependent upon SAV. The Fish and Wildlife Service's position is based on the need to protect aquatic habitats and allow for trumpeter swan restorations and competition-free areas for other native waterfowl. Mute swans also impact humans. The display of aggressive behavior by some swan pairs can interfere with swimming, boating, and fishing activities. Reports of attacks on children and pets in the U.S. are increasing, and these incidents have led to greater concerns about public safety (Nelson 1997).

Public Input and Development of Wisconsin's Mute Swan Control Policy

In Wisconsin, transient mute swans first appeared in Wisconsin in 1958 and resident mutes began nesting in the early 1970's in northwestern and southeastern counties. In the early 1990's,

Wisconsin's Trumpeter Swan Recovery Program began in earnest, and replacement of mute swans with trumpeter swans where possible was and still is a desired objective. During 1995 and 1996, the Department held informational meetings in Ashland (twice), Wausau, Kansasville, and Mukwonago to solicit public comments on a proposed policy to prevent further expansion of Mute Swans in the wild and to control mute swans by sterilizing adults and addling eggs. Citizens voiced strong support and very little opposition to the proposed policy. At all of the five meetings, only one individual spoke out against the control of mute swans. No organizations in the state opposed the control policy. Four organizations endorsed the need for control: The Wisconsin Society for Ornithology, The Nature Conservancy, the Wisconsin Audubon Council, and the Chequamegon Audubon Society. In 1997, the Department implemented the Natural Resources Board (NRB)-approved policy with the objective of achieving zero young produced by the year 2005.

During the 2000 control season, some negative public sentiment arose in the Town of Waterford in Racine County. As a result, the NRB asked the Department to review the existing policy to determine if a new policy was needed. The Department implemented an interim policy for 2001, which largely limited mute swan population control measures to public areas and to areas requested by private citizens or organizations. During the one-year interim period, Department wildlife biologists crafted an overall goal regarding mute swan management to: a) protect Wisconsin's native species and habitats, b) manage mute swans in an effective, efficient manner consistent with accepted wildlife management practices, and c) consider the values held by Wisconsin citizens. The Department asked for public comment on three potential control policies to help achieve this goal: 1) locate and destroy mute swan eggs; 2) control mute swans on state lands; and 3) remove all wild, free-flying mute swans from Wisconsin. A statewide press release was sent out in November 2001, and public input meetings were held in Eau Claire, Sturtevant, and Fitchburg. Weighing in against mute swan control was the Village and Town of Waterford, the Waterford Chamber of Commerce, the Town of Rochester, and the Animal Protection Institute. Weighing in to support mute swan control were the following: Wisconsin Waterfowl Association, Waukesha County Conservation Alliance, Sheboygan County Conservation Alliance, U.S. Fish and Wildlife Service, Wisconsin Society for Ornithology, Wisconsin Wetlands Association, Conservation Congress Migratory Bird Committee, Great Lakes Indian Fish and Wildlife Commission-Voigt Tribal Task Force, La Crosse County Conservation Association, Milwaukee Audubon Society, Madison Audubon Society, Wisconsin Audubon Council, The Wildlife Society-Wisconsin Chapter, and the Sierra Club-John Muir Chapter.

The result of the Department's internal review and the public input process was that **on 27 February 2002, the NRB approved a policy to remove all free-flying mute swans from Wisconsin, except for the two-township (Waterford and Rochester) area of northwestern Racine County.** The NRB also asked Department staff to report back after 3 years of control activities. Concurrent with the NRB's decision, however, was the outcome of a lawsuit on the East Coast challenging the Fish and Wildlife Service to include mute swans in their list of migratory birds. The ruling in the federal case resulted in mute swans becoming protected under the Migratory Bird Treaty Act. This, in turn, required the WDNR to obtain a federal Fish and

Wildlife Service depredation permit for Wisconsin's mute swan control effort. That permit had a restrictive quota of 75 birds and limited control of adding eggs to 30 nests. In the fall of 2003, however, another federal lawsuit challenging the Service's authority to allow any mute swan control resulted in the cancellation of depredation permits for a year until the lawsuit was settled. Accordingly, no mute swan control occurred in 2004. Congress then stepped into the picture in fall 2004 and passed the Migratory Bird Treaty Reform Act. This Act states that only migratory bird species that are native to the U.S. or its territories are included. The mute swan was not included in the list of species covered. The "Final List of Bird Species to Which the Migratory Bird Treaty Act Does Not Apply" was published in the Federal Register on 15 March 2005. WDNR Attorney Timothy Andryk concluded that the revised Act provided the basis for continued mute swan control activities.

As directed (30 March 2006) by DNR Bureau Directors Signe Holtz (Endangered Resources) and Tom Hauge (Wildlife Management), the Department's Ad Hoc Mute Swan Working Group reconvened on Thursday, 28 September 2006, at the Richard Bong Recreation Area to assess the results of mute swan control efforts to date and to make a recommendation regarding the Department's current Mute Swan Control Policy.

WDNR Ad Hoc Mute Swan Working Group – Results of Data Analysis

The Department's Ad Hoc Mute Swan Working Group analyzed four sets of data: 1) Aerial surveys during 1987-2006 in what is called the Mukwonago Study Area (MSA) of Waukesha, Walworth, and Racine counties. This is where the largest concentration of breeding mute swans occurs in the state. 2) Additional counts on the ground in southeastern Wisconsin (Waukesha, Walworth, Racine, Kenosha counties) during spring 2006. 3) Audubon Christmas Bird Count (CBC) data on winter mute swan sightings for the years 1970-2000. 4) Summary of statewide mute swan control efforts, 1997-2006.

The Working Group found that:

- From 1997—the first year of control activities—through 2006 (excepting 2004) Department staff have addled (largely by injection of corn oil-based solution and shaking) 556 eggs, and shot and disposed in landfills 530 adults and 49 young statewide (P. Manthey pers. comm., M. Johnson pers. comm., Table 1).
- Over the past 20 years, the largest percentage (75%-90% depending on year) of breeding mute swans has occurred in southeastern Wisconsin, particularly in the MSA. Because annual statewide surveys were not practical and affordable, monitoring efforts concentrated in the MSA, where an index to changes in breeding numbers could be established. After control activities began in 1997, spring aerial surveys in the MSA during 1998-2004 showed a 35% reduction in the total number of adult breeders/nonbreeders from 145 to 94 (Table 2). Fall aerial surveys in the MSA during 1998-2002 showed a 34% reduction in the number of adults/subadults/cygnets from 209

in 1998 to 138 in 2002 (Table 2). In the MSA during fall 2006, only 69 individuals were reported, a decline in MSA fall individuals of 67% since 1998 (Table 2).

What these data above revealed, as well as a report by Nelson (1997) that examined the state's mute swan population in 1996—one year before control began—are that **overall the Department control policy has been highly effective in checking the population growth of breeding mute swans in the state since 1996.** In 1996, there were 340 adult/subadult mute swans in the state (Nelson 1997). By spring/summer 2006, there were 119 that Department staff had counted statewide, with about 86% of these in southeastern Wisconsin (Waukesha, Walworth, Racine, Kenosha counties).

In northwestern Wisconsin, it is very clear that control actions have led to a substantial decline in the mute swan breeding population, particularly in the Ashland and Gordon areas. In 1986, there were 44+ mute swans in the Ashland and Gordon areas during the spring/summer (WDNR files). In 2006, there were only 3 adults at Ashland during the spring/summer (F. Strand pers. comm.).

In contrast to the above, however, limited CBC data from 1970 to 2000 showed an increase in mute swans, but this may be explained in part by an influx of birds from the state of Michigan during fall/winter. Similarly, recent fall 2006 aerial surveys showed that there were nearly 700 mute swans in the state (P. Manthey pers. comm.), but with two-thirds of these observed along the western shore of Green Bay in Oconto and Brown counties (Appendix A, Table 3), strongly pointing to an influx of birds from the state of Michigan since northeastern Wisconsin has few breeding mute swans. The presence of these birds, however, underscores the need for the state to remain vigilant in their mute swan control efforts.

Recommendation to NRB on Statewide Mute Swan Control Policy

- The Department recommends that Natural Resources Board continue the current policy because the present course is effective in reducing the spread of this exotic species in the state. This is especially true at a time when the Department is apparently dealing with a manageable number of probably fewer than 150 breeding birds.
- Accordingly, the Department recommends that the NRB policy toward mute swans be unchanged from that in 2002: **to remove all free-flying mute swans from Wisconsin, except for the two-township (Waterford and Rochester) area of northwestern Racine County.** The Working Group requests that it report back in 3 years to provide a program review and update.

Literature Cited

Nelson, H.K. 1997. Mute swan populations, distribution and management in the United States and Canada. Pages 14-22 *in*: North American Swans, Bulletin of the Trumpeter Swan Society, Volume 26, Number 2 – December 1997.

Table 1. Summary of Mute Swan Control in Wisconsin, 1997-2006

YEAR	ADULTS REMOVED (Shot unless noted)	YOUNG REMOVED	EGGS ADDLED
1997	4*	--	119
1998	2**	--	
1999 see note A	--	--	
2000	--	--	180
2001	34	--	23
2002	62 +4**	7	93
2003	75 (quota)	--	92
2004 See note B	--	--	--
2005	128	31	5
2006	227	11	44

* For sterilization anatomical study

** Removed to captivity

A. Limited control activity due to lack of available staff

B. No Control allowed due to federal court ruling

Table 2. Spring and Fall Aerial Surveys of Mute Swans in the Mukwonago Study Area (Racine, Walworth, Waukesha Counties)

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
# active nests	41	41	46	40	40	41	32	27	29		
# inactive nests	2	2	-	-	-	-	-				
# eggs	-	-	-	-	-	-	-				
# breeders	82	82	92	80	80	82	64	54	58		
# nonbreeders	62	53	53	56	41	26	53	45	36		
# spring individuals											
Total:	144	135	145	136	121	108	117	99	94		
# cygnets fledged	-	35	60	44	44	57	52				20
# fall subadults + adults	-	141	149	146	144	91	86				49
# fall individuals											
Total:	-	176	209	190	188	148	138				69
# successful nestings	-	14	17-19	16	13	16	14				6

APPENDIX A. MUTE SWAN AUTUMN SURVEY 2006

by Patricia Manthey, WDNR Bureau of Endangered Resources, 10/20/2006

The project: In order to estimate the autumn mute swan population in Wisconsin, during the week of October 16 we conducted aerial surveys in most areas of the state where Mute Swans were known to occur. The aerial survey site list was developed by an email query to DNR wildlife and law enforcement personnel requesting their sightings of mute swans. Added to that were sites that had reported mute swans for the last wide-area survey in 2001-2002. For a few isolated sites we relied on ground observation.

The survey: Three aerial routes were developed: “Northeast” from Oshkosh north and east including Green Bay, “Madison north” from Madison up to the Petenwell Flowage, and “Southeast” from Madison to near Milwaukee and south to the Illinois line.

The Northeast Route included sites in Brown, Door, Florence, Fond du Lac, Marinette, Oconto, and Winnebago counties. The Madison North Route included sites in Adams, Columbia, Green Lake, Iowa, Juneau, and Marquette counties. The Southeast Route included Dane, Jefferson, Kenosha, Racine, Rock, Walworth, Washington, and Waukesha counties. Since Mike Mossman of Integrated Science Services had already done the aerial survey on the Mukwonago Study Area (MSA) in parts of Racine, Walworth, and Waukesha counties, we did not re-survey those sites except the Phantom Lakes area (to provide data to aid in the control effort).

Ground observation data were used for 2 sites in Ashland and Trempealeau counties.

Results: Survey results are presented in Table 3 as total mute swans. Viewing conditions coupled with the existence of white phase cygnets made it impossible to consistently differentiate adults from young.

The survey found 693 mute swans in the state. Approximately 2/3 of them were on the western shore of Green Bay (Oconto and Brown Counties). It is most likely that these are Michigan swans on wintering areas, not Wisconsin breeders. However, their presence illustrates the continuing challenge of in-migration from other states.

Table 3. Results of 2006 Wisconsin Autumn Mute Swan Survey.

ROUTE	COUNTY	# MUTE SWANS	ROUTE TOTAL
Northeast	Brown	19	
	Door	125	
	Florence	0	
	Fond du Lac	1	
	Marinette	1	
	Oconto	454	
	Winnebago	0	
			600
Madison North	Adams	1	
	Columbia	27	
	Green Lake	0	
	Iowa	2	
	Juneau	5	
	Marquette	0	
			35
Southeast	Dane	20	
	Jefferson	0	
	Kenosha	28	
	Racine	0	
	Rock	0	
	Walworth	0	
	Washington	2	
	Waukesha	13*	
			50
Ground reports	Ashland	3	
	Trempealeau	5	
			8
GRAND TOTAL			693

*This site is in the Mukwonago Study Area (Waukesha, Walworth, Racine counties) and NOT included in totals. Data need to be compared to Mossman's fall MSA survey.

Discussion: These data can be compared with earlier year's surveys to assess effectiveness of mute swan control efforts. In order to continue that evaluation, it is strongly recommended that surveys be continued on a regular basis. Spring surveys assess the breeding population. Fall surveys incorporate nesting success. The MSA data can be used as a population index, but statewide surveys are also needed to monitor Mute Swan population expansion.